

CHAPTER 6

INTERNATIONAL LOGISTICS COMMUNICATIONS SYSTEM (ILCS)A. GENERAL

The **ILCS** has been developed for the improvement of logistics communications service to Foreign Military Sales (**FMS**) countries. The service provides a telecommunications capability which allows a foreign nation to exchange logistics information with the United States Government (**USG**) and Department of Defense (DoD) logistics community. The **ILCS** service is provided to an **FMS** country when it has been determined that the existing method of communication is not adequate to serve the **FMS** country needs. The information processed on the **ILCS** between **FMS** countries and **USG** activities is contained in individual narrative logistics messages and data pattern (80 position image) logistics messages.

B. CONCEPT OF OPERATIONS

The Defense Automatic Addressing System Office (**DAASO**) in Dayton, Ohio, has developed message formatting and routing scheme techniques which the **ILCS** subscribers have agreed to use. The procedures follow basic AUTODIN system formats. The **ILCS** subscriber is contacted by **DAASO** on a scheduled basis. The dial-up circuit connection is made and the **ILCS** subscriber sends any traffic on hand for DoD logistics community addresses. After receipt of the subscriber data, **DAASO** transmits any pending message traffic for delivery to the appropriate **ILCS** subscriber. **ILCS** subscribers have the capability to address and exchange message traffic between themselves by using the dial-up circuits and/or the interface at the **DAASO**. The **ILCS** subscriber also has the capability, via the **DAASO** connection, to reach any addressee served by the AUTODIN system. Identification of **ILCS** subscribers appears in **DoD/AUTODIN** message routing directories, i.e., Allied Communications Procedures (**ACP**) 117 (reference (g)). This allows all **USG** activities served by the AUTODIN to send messages to the **ILCS** subscribers via **DAASO**. All **ILCS** message traffic is unclassified. The **ILCS** telecommunication system has not been designed to provide a capability to process information in a secure mode of operations with protection provided by National Security Agency (**NSA**) approved/provided communications security devices. Since none of the **ILCS** traffic is classified, there is no requirement to impose security measures for that purpose. Although classified data are not transmitted over **ILCS**, all unclassified data are protected through use of encrypted circuits between **DAAS** and DoD AUTODIN.

C. SYSTEM DESCRIPTION

The **ILCS** is a dial-up communication network. The central interface point in the CONUS is the **DAASO** in Dayton, Ohio. The system consists of two automated systems: The CONUS system named the **FMS Automatic Dataphone** System (**FADS**) and the **FMS** country system named the International Logistics Overseas Support system (**ILOSS**). These two systems are connected together by the International Switched Telephone Network on a dial-up basis. Costs associated with this

connection are on a "time-used" basis. Message traffic to/from an FMS country flows between the ILOSS communications terminal to the FADS and then to the DoD logistics community through an interface with the AUTODIN at the DAASO Dayton facility. The message traffic exchange path for the ILCS is described as follows :

1. The FMS country introduces and receives FMS case related narrative and data pattern messages by operation of the FMS country ILOSS terminal through international dial-up circuits to the DAASO operated FADS.

2. The ILCS traffic then is processed through the FADS to the DAAS automated information system which is interfaced with the DoD AUTODIN. Any data pattern message processed by the FADS which does not have the DAAS Communications Routing Indicator (COMM RI) is specially marked for surveillance.

3* The DAAS automated information system segregates the ILCS traffic in accordance with the FMS country inserted COMM RI:

a. ILCS traffic containing the DAAS COMM RI (which in accordance with the policy of the U.S. International Logistics Control Offices (ILCOs) must apply to all MILSTRIP messages) flows via AUTODIN between DAASO and the appropriate ILCO where it is validated against an FMS case.

b. ILCS traffic containing a non-DAAS COMM RI is relayed by DAASO via AUTODIN or the ILCS FADS to the activity or country represented by the COMM RI. Examples: interrogations of the Defense Integrated Data System (DIDS) citing the COMM RI for the Defense Logistics Services Center (DLSC); narrative FMS logistics messages between FMS countries.

D. FMS AUTOMATIC DATAPHONE SYSTEM (FADS)

1. Logistics Document Processing. The FADS is fully integrated with the DAAS. All MILSTRIP messages received from countries are processed by the DAAS for the purpose of editing and applying the U.S. Services rules and procedures. This prevents any obvious errors in requisitions, etc., from being introduced into the DoD logistics system and speeds up the overall process.

2. Automatic Routing of Narrative Messages. The FADS provides for the routing of unclassified logistics narrative messages to/from each country based on a pseudo COMM RI and the accompanying Plain Language Address (pLA). Initially, each country interfaced is asked who in CONUS they want to communicate with via message. Once the list is established, the FMS country is provided a set of pseudo COMM RIs with PLAs. From that point on, the country needs only insert the pseudo COMM RI and PLAs in their messages, and the FADS ensures the correct data is inserted into the message prior to its introduction into AUTODIN.

3. Automatic Message Recovery from Transmission Interruptions. The FADS provides for message protection and recovery in case of transmission interruptions. Whenever a transmission line is interrupted or lost due to a facility malfunction, the FADS marks its files exactly where the interruption occurred. When reconnection takes place, FADS retransmits only the message which was in progress when the interruption occurred.

4. Automatic Message Switching. The FADS provides for automatic message switching of the narrative messages between ILCS countries. When the intended recipient **country** is not a subscriber to ILCS, FADS forwards the **message through** existing **channels**.

5. Modular Software Design. The FADS modular design can be easily expanded or reduced in size, as required, depending on the country's needs.

6. Multi-computer Interface Capability. The FADS has the **capability** to interface to a variety of **computers**. The **protocol** used by FADS is the "Inter-CPU 2780 Bi-Sync protocol." It is one of the standard protocols used throughout the world.

E. INTERNATIONAL LOGISTICS OVERSEAS SUPPORT SYSTEM (ILOSS)

1. Description. The ILOSS is a fully **automated** telecommunication system. The **ILOSS** coupled with the dataphone provides the **FMS** country with a "stand-alone" telecommunications terminal or it can be designed to **act as** a "front end processor" to an already existing country **telecommunications** network. The ILOSS has been **implemented** on **mini-** or microcomputer systems because of their relative low cost and **small** physical size. These systems require very little **space** and have proven to be very reliable under a wide range of operating environments. The ILOSS connects to the in-country switched telephone network via a WECO 201 C Modem or equivalent. The telephone circuit connected should be one with direct access to the international network with no other extensions connected. If the system is connected to either local or remote host systems, the in-country facilities can either be dial-up or dedicated lines.

2. Optional Development. ILOSS can be provided in the following two **ways**:

a. Potential Subscribers Use of Existing ADP System. If the **FMS** country has an **existing** ADP **system** with **communications capability** (or communications **capability** can be added to existing ADP), the country has the option to use this capability instead of being provided a DAASO developed turnkey system (see below). The DAASO can provide the prospective user with specifications and technical assistance to enable them to develop ILOSS on their own **system** with their own staff or contractor.

b. DAASO Developed Turnkey System. This option **is** available to an **FMS** country within **4** to **months** from the signing of a Letter of Offer and Acceptance (LOA). The **turnkey system** provides the subscriber everything needed to implement ILOSS, i.e., the hardware, software, training and the installation of the system at the subscriber's site. Currently, the turnkey system has been developed on the Honeywell's Level 6, DPS6, MICRO 6, the IBM 34/36 series, and large IBM main frame systems, e.g., 4300 series.

(1) Features of the Turnkey System. This menu driven system provides for easy **system** operation and initial training. Another feature of the turnkey system is the interactive message preparation. Instead of preparing messages offline, messages can **be** entered **directly** into the computer in an online mode. This feature eliminates the requirement for formatting, editing and double keying **of** messages. The operator only **has** to follow the instructions on the CRT menu and insert the text of the message. DAASO has added to the available

devices, a card device on some systems which can function as both reader and interpreting card punch.

In the **offline** mode, the unit can function as a keypunch, verifier, interpreter or duplicator. The corresponding **system** software is flexible and modular. The standard **ILOSS** consists of a telecommunications package which allows the system to send and receive unclassified narrative and/or logistics data messages such as requisitions and status. The communications housekeeping is performed automatically and the logistics data are delivered in **case** sequences to the country supply personnel. Current data exchange rate is approximately 120-150 blocks /logistics documents per minute. The turnkey **ILOSS** has the capability to connect to remote terminals within country over existing networks.

(2) Field Expandable Hardware. Turnkey systems, if required, can be expanded in the field. The basic **ILOSS** configuration consists of 256, 000 bytes of memory, 10 megabyte disk unit, a 50 line per minute printer, a multi-line communications controller with space for 8 ASYNC or SYNC communications lines, an operator CRT and either a card device or other output media, depending on the country requirement. **Optional** equipment can range from additional memory, tape drives to 256 MB disk drives and high speed line printers.

(3) Country Orientation Training. When a country procures the turnkey system, the ~~new~~ complete system is installed at **DAASO** for a period of up to 60 calendar days. During this period, the system undergoes complete testing, called "hot stage." During this "hot stage" period, the country personnel come to **DAASO** to receive orientation training and a check out on their system. The training consists of hardware familiarization, software training and operations training. After the "hot staging" is completed, the system is de-installed and shipped to the country for installation by both **DAASO** personnel and country personnel.

F. BENEFITS

As more sophisticated and costly weapon systems are acquired by **FMS** countries, rapid communications of logistics data becomes more essential in obtaining acceptable readiness. The **ILCS** provides a direct, rapid electrical connection between **FMS** countries and the U.S. (**ILCOs**, freight forwarders, **DLSC DIDS**, etc.). It significantly reduces both the requisitioner's submission time and the receipt of status. Also, by reducing the time frames that documents are within the communications pipeline, it improves the **FMS** country's readiness posture by ensuring earlier receipts of materiel. This contributes to enhancement of the **FMS** country's image.

G. SYSTEM COSTS

The investment and recurring costs of the **ILCS** related to **FMS** countries and freight forwarders are essentially defrayed from funds reimbursed by the **FMS** countries to the **USG** under established **FMS** cases. The country pays for the **ILOSS** and the recurring dial-up telephone circuit and toll charges. The cost to operate the **FADS** and other **ILCS** related functions at the **DAASO** are chargeable to the **ILCS** subscribers. The cost of a turnkey **ILOSS** to an individual country cannot be determined exactly until a country site survey is accomplished. However, the first year cost for a turnkey system ranges from \$25, 000-\$65,000 with subsequent years costing approximately \$15, 000-\$20,000.

H. WORLDWIDE INTEREST IN ILCS

ILOSS has been operational since **1979**. It has been extended to 14 countries with additional countries, freight forwarders, and U.S. contractors scheduled for **implementation** in. **CY 85**. As of February 1985, FMS countries subscribing to **ILCS** were: Brazil, Egypt, Indonesia, Israel, Jordan, **Korea , Kuwait ,** pakistan, Philippines, Saudi Arabia, Singapore, Taiwan , **Thailand** and **Tunisia**. prospective customers in **FY 85 include:** Ecuador, El Salvador, Honduras, Malaysia, Morocco, Portugal, Spain, Turkey and Venezuela.